REMARKS

In the Office Action, the Examiner indicated that claims 1 through 17 are pending in the application, claims 6 and 7 are withdrawn, and the Examiner rejected claims 1-5 and 8-17.

The Restriction Requirement

On page 2 of the Office Action, the Examiner required restriction of the invention to one of the following two groups: Group I (claims 1-5 and 8-17), drawn to a method, or corresponding system and code for carrying out the method, for monitoring occurrences of events related to operation or a processor; and Group II (claims 6 and7), drawn to a performance monitor. In a telephone conference with Mark McBurney held on October 27, 2003, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-5 and 8-17. This election is hereby affirmed.

The Objection to the Drawings

On page 3 of the Office Action, the Examiner objected to the Figures 1 and 2 because they include reference signs not mentioned in the description. Applicant submits herewith amended Figures 1 and 2 for the Examiner's approval in both "marked-up" and replacement sheet form.

The Claim Objections

On page 4 of the Office Action, the Examiner objected to claims 5 and 15 for various informalities. Claim 5 has been amended in accordance with the Examiner's suggestion (as set forth below, claim 15 has been canceled).

Claim Rejections, 35 U.S.C. §112

At item 9 on page 4 of the Office Action, the Examiner rejected claims 3, 10, and 15 under 35 U.S.C. §112, second paragraph. Applicant has amended the substance of claims 3, 10, and 15; inserted the amended substance of these claims into independent claims 1, 8, and 13, respectively, and canceled claims 3, 10, and 15. Applicant submits that the substantive amendments overcome the rejection under 35 U.S.C. §112, second paragraph. Further, claims 3, 10 and 15 have been canceled. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. §112.

Claim Rejections, 35 U.S.C. §102

In item 11 on page 5 of the Office Action, the Examiner rejected claims 1, 2, 4, 5, 8, 9, 11-14, 16 and 17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,557,548 to Gover et al. ("Gover").

The Present Invention

The present invention is a performance monitor having plural performance monitor counters (PMC's) and at least one monitor mode control register (MMCR),

where each PMC is controlled by the MMCR to pair or group the PMCs so that the

overflow from one PMC can be directed to its pair/group. In a preferred

embodiment of the present invention, when the number of events to be monitored is

less than the number of counting elements, the MMCR groups the PMCs by

dividing the number of available PMCs (counting elements) by the number of events

being monitored by the PMCs; taking the integer portion of the result of this

dividing step and assigns a number of PMCs, equal to that integer, to each of the

events to be counted; and, if there are any remaining unassigned PMCs, assigning

the unassigned counting elements to at least one of the events.

U.S. Patent No. 5,557,548 to Gover et al.

U.S. Patent No. 5,557,548 to Gover et al. ("Gover") teaches a method and system

which monitors specified events among the number of events within a data processing

system. An MMCR allows control over which PMCs are used to monitor which events,

and this control enables the ability of certain of the PMCs to be used for overflow of other

PMCs.

The Cited Prior Art Does Not Anticipate the Claimed Invention

The MPEP and case law provide the following definition of anticipation for the

purposes of 35 U.S.C. §102:

> "A claim is anticipated only if each and every element as set forth in the
> claim is found, either expressly or inherently described, in a single prior art

reference." MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987).

As noted above, the present invention is directed to a particular method, system, and computer program product for calculating the division of plural PMCs among events being monitored by the PMCs. Applicant acknowledges that the present invention utilizes the control concept taught by Gover. However, the present invention improves upon the functionality of Gover by enabling the MMCR to calculate the optimal division of the PMCs among the events being monitored, when there are fewer events than PMCs. This division calculation is explicitly now claimed in all of the independent claims, and thus all of the dependent claims. Since Gover does not teach or suggest these claimed elements, it is submitted that the present invention patentably defines over Gover et al. Accordingly, each of the independent claims, and all claims depending therefrom, patentably define over Gover and are in condition for allowance.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.
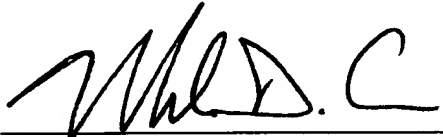
Enclosed herewith, in triplicate, is a Petition for extension of time to respond to the

Examiner's Action.   The Commissioner is hereby authorized to charge any additional

fees or credit any overpayment associated with this communication to Deposit Account No.

19-5425.

Respectfully submitted

MAY 6, 2004
Date

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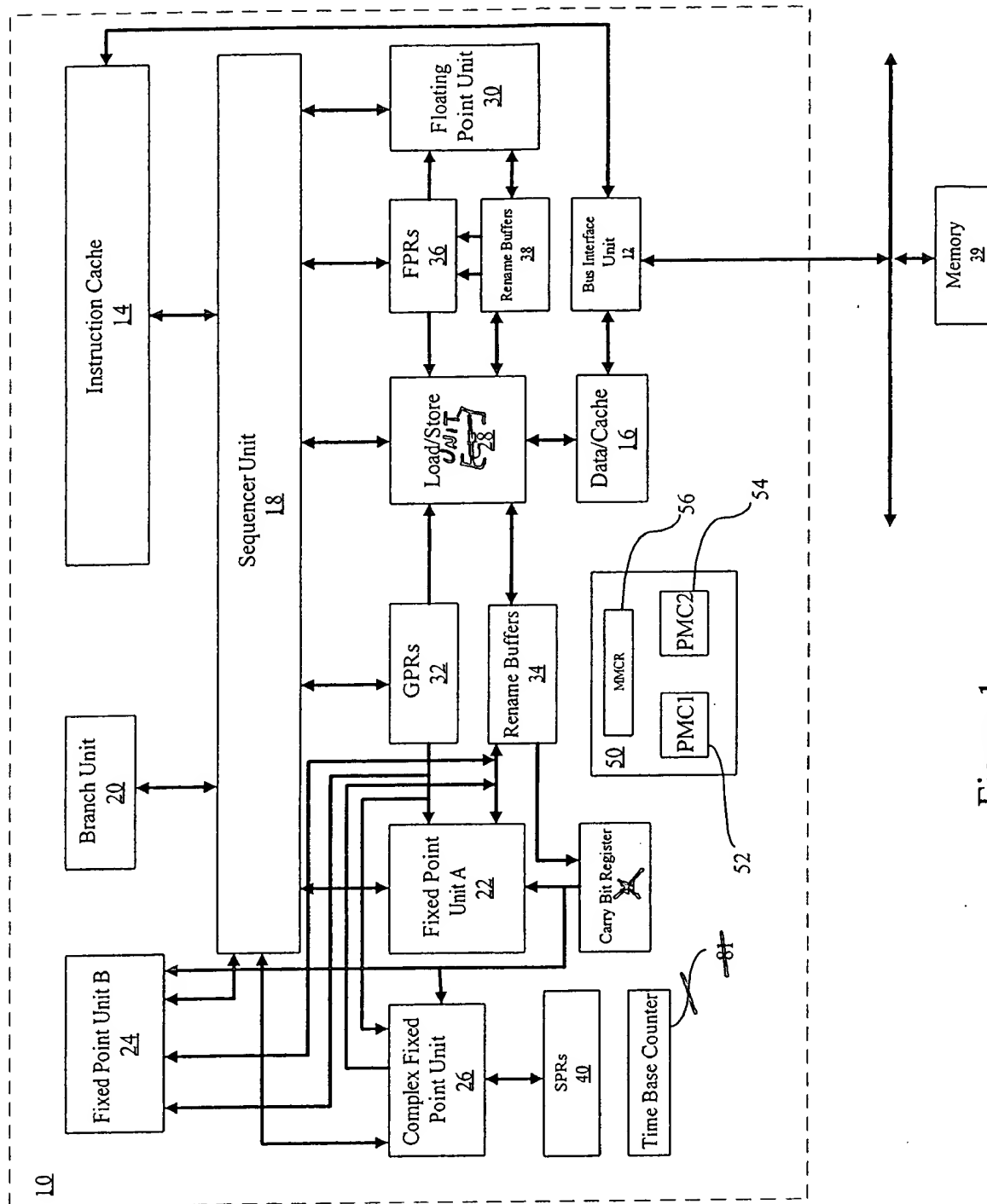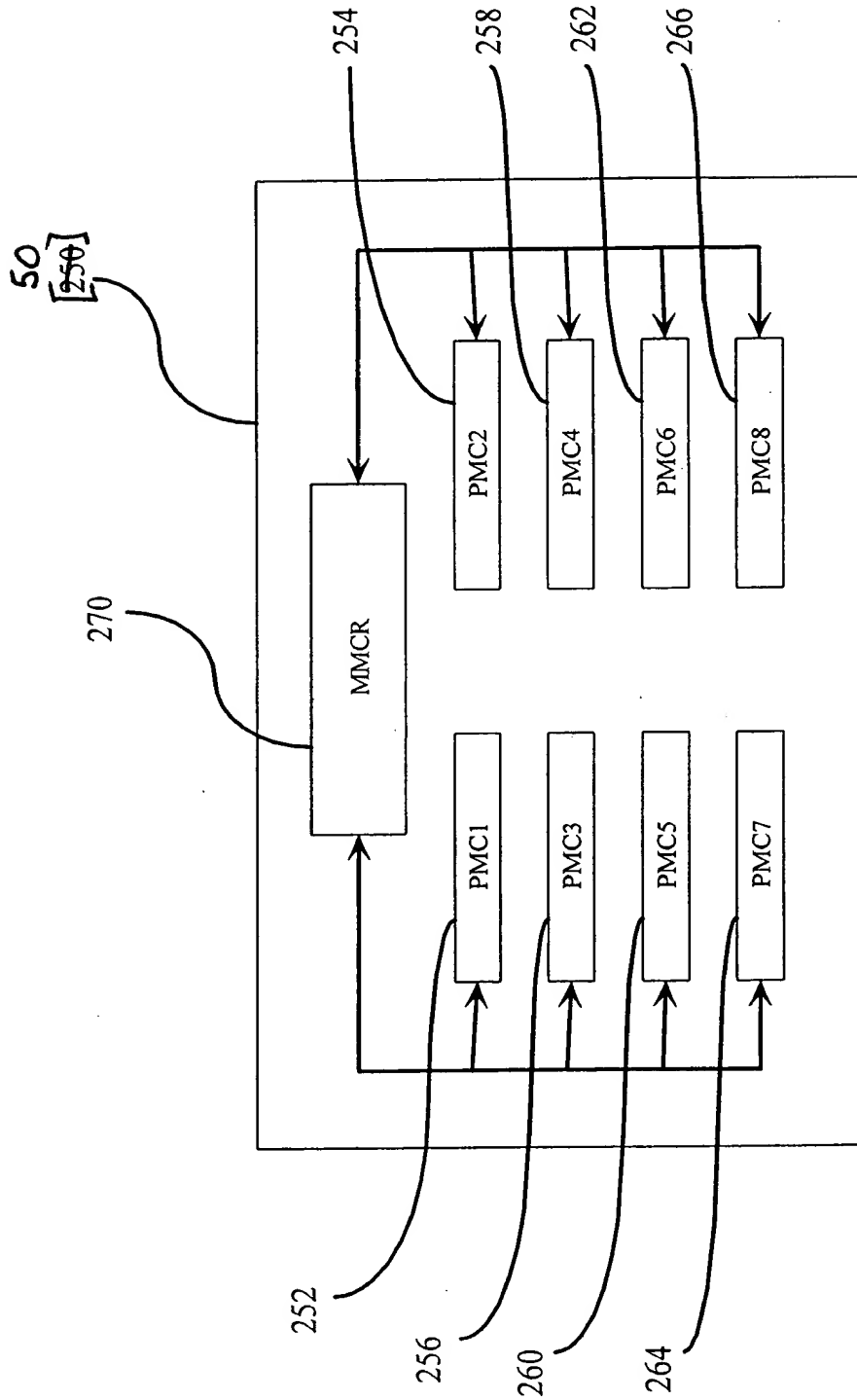Facsimile: (215) 923-2189

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Figure 1

Figure 2